



Analysis of the labels of *Camellia sinensi* and *Endopleura uxi* in supermarkets in the municipality of Castanhal (NE, Pará, Brazil)

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ABSTRACT

As established by the World Health Organization (WHO, 1998), it is observed that 80% of the global population makes use of medicinal plants. This practice, which translates into the use of medicinal plants as a therapeutic alternative, is adopted by a considerable contingent of individuals in the Brazilian context. The present study aims to analyze the standardization of information on the packaging of *Camellia sinensis* and *Endopleura uchi* sold in large supermarket chains in the municipality of Castanhal-PA based on the current legislation and other studies on the subject.

Keywords: World Health Organization (WHO), *Endopleura uchi*, *Camellia sinensis*.

1 INTRODUCTION

As established by the World Health Organization (WHO, 1998), it is observed that 80% of the global population makes use of medicinal plants. This practice, which translates into the use of medicinal plants as a therapeutic alternative, is adopted by a considerable contingent of individuals in the Brazilian context.

Herbal medicine is a medicine obtained from medicinal plants and is an effective and safe therapeutic option. Currently, the clinical investigation of medicinal plants to obtain these pharmaceutical products has been a priority. This work analyzed the production of herbal medicines from the plants *Camellia sinensis* and *Endopleura uchi*. The species are also known as yellow uxi and uxi-liso, and wood is widely used in civil and naval construction (NAHUZ, 2013). The work consisted of a survey of the following information on the labels of teas available in supermarkets: vernacular name, scientific name, weight, indications, expiration, batch, technical responsible, address and price of the product, which are requirements of ANVISA for food products.



2 OBJECTIVE

The present study aims to analyze the standardization of information on the packaging of *Camellia sinensis* and *Endopleura uchi* sold in large supermarket chains in the municipality of Castanhal-PA based on the current legislation and other studies on the subject.

3 METHODOLOGY

The research was of the descriptive qualitative type, carried out through field research in supermarkets in the municipality of Castanhal-PA. In the choice of two herbal teas for the analysis of the species *Camellia sinensis* (green tea) according to the manufacturing process: fermented (black), semi-fermented and non-fermented (green) (MATSUBARA and RODRIGUEZ-AMAYA, 2006) and *Endopleura uchi* (yellow uxi) knowing that of the selected teas two commercial brands (1 and 2) were chosen, with two samples of each tea for analysis.

4 DEVELOPMENT

When analyzing the packages, it was noted that there was a correspondence in the protection of humidity and light, they were within the expiration date and all 4 samples analyzed had the scientific name of the species and the vernacular name. They had the indications of (M1 = antioxidants) and (M2 = Against fibroids and inflammation), weight (M1 = 30g and M2 = 50g), Batch (M1 = 32, M2 = 45), Shelf life (M1 = 2 years), M2 = 2 years. However, mark 2 did not inform the care of toxicity.

Studies show that the toxicity of *Camellia sinensis* in the form of tea presents a toxic substance when consumed in doses outside the recommended standard, causing undesirable effects, especially for individuals suffering from liver diseases (REGO et al., 2022). According to Martins de Sá (2014), after several non-clinical trials, *Endopleura uchi* showed no toxicity.

Camellia sinensis is a species of plant beneficial to health, belonging to the Theaceae family, and popularly known as green tea, green tea has several beneficial effects on human health thanks to its antioxidant properties coming mainly from the phenolic compounds present in it, and to obtain it dry leaves and the buds of the plant are used (PERON et. al. 2008). The teas produced from the *Camellia sinensis* plant are classified into three categories according to the manufacturing process: fermented (black), semi-fermented (oolong) and non-fermented (green) (MATSUBARA and RODRIGUEZ-AMAYA, 2006). As for the active ingredient, epicatechin-3-gallate (EGCG), represented in figure 1, is the major flavonoid found in *Camellia sinensis*, and has anti-inflammatory, microbicidal and trypanosomicidal properties. Bergenin is the major substance of the *E. uchi* plant, being an isocoumarin extracted and isolated from the ethanoic extract of the barks of the species. It is also present in the lyophilized aqueous extract (BORRE, 2010).



5 FINAL THOUGHTS

In summary, the population's demand for herbal medicines is driven, above all, by the search for the reduction of adverse effects, the intrinsically therapeutic nature and the reduced costs when compared to therapeutic approaches involving synthetic medicines. On the other hand, it is necessary for companies present in this market to offer a standardized product, capable of passing on the information necessary for safe use. Especially in this post-pandemic moment where Phytotherapy has been inserted as a model of alternative therapy in the SUS, designating health professionals as responsible for applying their knowledge and techniques for the benefit of the population, with ANVISA as the regulatory entity for medicinal plants and herbal medicines.

In view of the results of this research, it is imperative to improve the dissemination of Phytotherapy in society. It is essential that this practice is recommended by specialized professionals, providing patient safety and maximizing the chances of successful treatment. Such an approach aims to mitigate potential adverse reactions resulting from toxicity as well as ensure the desired efficacy. In conclusion, the informed and responsible dissemination of Phytotherapy, supported by expert guidance, is a crucial step to ensure a safer and more effective integration of this therapeutic modality into clinical practice.



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